KARNATAKA TEST HOUSE PVT LTD.

MATERIAL TESTING LABORATORY

NABL Accredited Laboratory as per ISO/IEC 17025

NABL Accredited Lab Certificate No.T-0901

Report No. : KTH/C.AGG/1967-3322/2013-2014 **Date: 18.12.2013**

TEST REPORT ON AGGREGATE
(Coarse Aggregate)

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP Bangalore.

Name of the Project* : Construction of Compound wall staircase & other work to work to ward office, In ward no.13, in shettyhalli sub-division.

Name of Contractor* : Mr. B.Umesh, Bangalore.

Source of Sample : Supplied by the Customer.

Sample Received on : 14.12.2013.

Technical Reference : IS : 2386 Part I to ' III– 1963 (Reaffirmed-2002), IS : 383 – 1970.

Sieve Analysis of Coarse Aggregate - 40mm & down size

Sl. No.	Sieve size mm	% Passing	IS : 383-1970 Stipulations		Remarks
			Single Size	Graded Size	
1	63	100	100	100	Sample does not confirms to IS: Stipulation of 40mm size Aggregate
2	40	54.9	85 to 100	95 to 100	
3	20	0.2	0 to 20	30 to 70	
4	12.5	-	0 to 20	-	
5	10	-	0 to 5	10 to 35	
6	4.75	-	-	0 to 5	

Sl. No.	Test Conducted	Identification mm	Results	IS : 383 – 1970 Stipulations
1	Flakiness Index (%)	40	13.69	Not specified
2	Elongation Index (%)	40	16.78	Not specified
3	Impact Value (%)	40	23.54	Shall not be more than 45% for Concrete and 30% for Wearing surfaces, such as runways, roads and pavements.

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

AE 13

(SREENIVASA.C.)
TECHNICAL MANAGER

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778/44, Gokul 1st Stage, 2nd Phase, 8th Cross, Triveni Road, Yeshwanthpur, Bangalore - 560 054.
Tel: 23378383 Telefax : 23375326, E-mail : kthblr@gmail.com Website : www.karnatakatesthouse.com

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NABL Accredited Lab Certificate No.T-0561

Report No. : KTH/F.AGG/1967-3323/2013-2014 **Date: 18.12.2013**

TEST REPORT ON AGGREGATE
(Fine Aggregate)

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Construction of Compound wall staircase & other work to work to ward office, In ward no.13, in shettyhalli sub-division.

Name of Contractor* : Mr. B.Umesh, Bangalore.

Source of Sample : Supplied by the Customer.

Sample Received on : 14.12.2013.

Technical Reference : IS : 2386 Part I to VIII– 1963 (Reaffirmed-2002), IS : 383 – 1970.

Sieve Analysis of Fine Aggregate (River Sand)

Sl. No.	Sieve size mm	% Passing	IS : 383 – 1970 Specification				Remarks
			% passing for Zone I	% passing for Zone II	% passing for Zone III	% Passing for Zone IV	
1	10	100	100	100	100	100	Falls in Zone –I as per table 4 of IS-383 – 1970.
2	4.75	96.5	90 – 100	90 - 100	90 – 100	95 - 100	
3	2.36	89.6	60 – 95	75 – 100	85 – 100	95 - 100	
4	1.18	59.5	30 – 70	55 – 90	75 – 100	90 - 100	
5	0.600	33.6	15 – 34	35 – 59	60 – 79	80 - 100	
6	0.300	5.6	5 – 20	8 – 30	12 – 40	15 to 50	
7	0.150	0.5	0 – 10	0 – 10	0 – 10	0 to 15	

Sl. No.	Test Conducted	Results	IS : 383 – 1970 Stipulations
1.	Silt Content (%)	6.75	-

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

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Report No. : KTH/CEMENT/1967-3324/2013-2014 **Date: 23.12.2013**

PHYSICAL TEST REPORT ON CEMENT

Interim 3 & 7 days

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP Bangalore .

Name of the Project* : Construction of Compound wall staircase & other work to work to ward office, In ward no.13, in shettyhalli sub-division.

Name of Contractor* : Mr. B.Umesh, Bangalore.

Source of Sample : Supplied by the Customer.

Type of cement* : Ordinary Portland Cement (OPC)

Brand of cement* : Coramandel 53 Grade.

Sample Received on : 14.12.2013.

Period of test : 16.12.2013 to 23.12.2013.

Technical Reference : IS: 4031(Part I–VI) 1988 (Reaffirmed–2000) & IS: 12269-1987.

Sl. No.	Test Conducted	Results	IS : 12269-1987 Stipulation	Remarks
1	Normal consistency	29.5 %	Not specified	-
2	Initial setting time	182 minutes	Shall not be less than 30 minutes	P
3	Final setting time	263 minutes	Shall not be more than 600 minutes	P
4	Compressive strength (Average of three results) a. 72 ± 1h (3 days) b.168 ± 2h (7 days) c. 672 ± 4h (28 days)	 28.74 MPa 39.91 MPa T.T.C	 Shall not be less than 27.0 MPa Shall not be less than 37.0 MPa Shall not be less than 53.0 MPa	 P P -
5	Fineness (By Blaine's air permeability method)	324.17 m^2/kg	Shall not be less than 225m 2/kg	P
6	Soundness (Le-chatlier's method)	1.15 mm	Shall not be more than 10 mm	P

P: Passes IS requirement F: Fails IS requirement T.T.C: Test To be Conducted.

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

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(SREENIVASA.C.)
TECHNICAL MANAGER

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NABL Accredited Lab Certificate No.T-0901

Report No.: KTH/ST/1967-3325/2013-2014 **Date: 19.12.2013**

TEST REPORT ON STEEL BARS

Name of the Customer* : **The Assistant Executive Engineer,**
Shettyhalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Construction of Compound wall staircase & other work to work to ward office, In ward no.13, in shettyhalli sub-division

Name of Contractor* : Mr. B.Umesh, Bangalore.

Source of Sample : Supplied by the Customer.

Sample Received on : 14.12.2013.

Nature of Sample* : Reinforcement steel – 12mm & 16mm.

Technical Reference : Tensile IS: 1786 – 2008 & IS: 1608–1995 (Reaffirmed–2000)
Bend & Re-bend IS: 1786 – 2008 & IS: 1599 - 1985 (Reaffirmed–2000)

Grade of Steel* : Fe-500,

TENSILE TEST:

Dia (mm)	**12**	**16**	**Limits as per IS : 1786-2008, Gr. Fe 500**
Weight / unit length (kg/m)	0.886	1.523	12mm – 0.844 Min 16mm – 1.501 Min
Yield Stress (N/mm^2)	547.77	550.32	500 Min
Tensile Strength (N/mm^2)	657.90	646.69	8% More than actual 0.2% proof stress but not less than 545 N/mm^2
% Elongation (on 5.65 $\sqrt{A}$G.L)	20.0	21.6	12.0 Min.

BEND TEST:

Sl. No.	*Dia (mm)*	*Mandrel diameter*	*Observations*
1.	12	4 dia	No cracks observed. Passes the test.
2.	16	4 dia	No cracks observed. Passes the test.

REBEND TEST:

Sl. No.	*Dia (mm)*	*Mandrel diameter*	*Observations*
1.	12	7 dia	No cracks observed. Passes the test.
2.	16	7 dia	No cracks observed. Passes the test.

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

(SREENIVASA.C.)
TECHNICAL MANAGER

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Report No. : KTH/CT/1967-3326/2013-2014 **Date: 15.12.2013**

TEST REPORT ON CONCRETE CUBES

To,

The Assistant Executive Engineer,
Shettyhalli Sub Division,
BBMP, Bangalore.

Name of the Project*: - Construction of Compound wall staircase & other work to work to ward office in ward no.13, in shettyhalli sub-division.

Name of the Contractor* : Mr. B.Umesh, Bangalore.

Sample Received on: 14.12.2013.

Compressive Strength test as per IS: 516-1959 (Reaffirmed 1999) has been conducted on the concrete cube specimens, supplied by the Customer and the results are tabulated here below:

Dimension of Specimen: 150mmx150mmx150mm

Sl. No	Cubes pertaining to the concrete cast at*(Details of structural member identification)	Grade of Concrete*	Date of casting*	Date of Testing	Age of Concrete on the date of test**	Contact area (mm^2)	Weight of Specimen (Kg)	Load in KN	Compressive Strength in N/mm^2
1.	Flooring Concrete	M_{20}	06.12.2013	14.12.2013	8 days	22500	8.080	339	15.07
2.		"	"	"	"	"	8.110	346	15.38
3.		"	"	"	"	"	8.030	331	14.71

1 N/Sq.mm = 10Kg/Sq.cm.(Approx.)
*As Furnished by the Customer
**Based on the data furnished by the Customer
Note: A minimum of three cube specimens shall be supplied for testing as per IS:516-1959.

for ***KARNATAKA TEST HOUSE PVT. LTD.***

KARNATAKA TEST HOUSE PVT. LTD. BANGALORE-54

(SREENIVASA C.)
TECHNICAL MANAGER

[redacted]

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